U.S. Environmental Protection Agency
Science Advisory Board
SAB Workgroup on Katrina Soil and Sediment Sampling Plan
Additional Collected Individual Comments on U.S. EPA Region 4 "Quality Assurance Project Plan, Katrina Response, Environmental Soil and Sediment Sampling, Gulf Coast of Mississippi, September, 2005"

As of October 5, 2005 (10:30 a.m.)

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Charge Question 1: I think the original objectives stated in the introduction and then explained more fully in Section 2.1.1 and 2.1.2 are clear and appropriate, to "determine what areas of the Mississippi Gulf Coast, in immediate proximity to the hazardous waste facilities, may be the site of a potential release of hazardous materials to surrounding soils and/or sediments." However, later on in the document, in section 2.1.5 and 4.0, different objectives are stated, which are not appropriate to the sample design. Specifically, the objective to determine "whether exposure to contaminated soil or sediment may pose an actionable human health risk" and if there is "unacceptable risk to human health" is not supported by this design. This is a screening study, not a risk assessment study. The implication is that the decision to be made is a yes/no decision, is the site have potential releases and needs to be studied further, or not?

Charge Question 2: In general, the sampling design will provide the necessary data to meet the objective stated in 2.1.1 and 2.1.2. The design and subsequently generated data would not support a health risk assessment, however.

Specific Comments and Questions related to the Charge Question 2:

There are lots of acronyms used without a full spelling out of what they mean. For example, NCBC (not defined until much later after its first appearance in document); EISOPQAM, ASBLOQAM, IDW.

Is there any information on what such sampling results would look like pre-Katrina? In other words, what is the background contamination from these sites in the immediate vicinity?

Timeline – hopefully sampling has not yet begun, and this review will have an opportunity to assist in and improve this effort.

Section 2.1.6 states that it is "important to specify the acceptable decision error rates." What are they?

Sections 3.1. and 3.3 – it would be preferable to have field staff who are experienced at conducting soil and sediment sampling, as there is some degree of professional judgment involved in this design.

Sampling depth – why 3" of soil, 6" of sediment? What is the rationale?

It is understandable that there is not the time to check the pre-cleaned containers for contamination. However, it would be useful to know the past performance of this QA check.

In section 5.2, the matrix spikes, duplicate sample collections, and split sampling will all occur at 5% frequency. For the 33 samples in this plan, that amounts to 1 matrix spike, one duplicate, and one split. Will this be sufficient? Or will you do 2 (round up the number of samples)? This should be clarified. It should also be specified that they will be analyzed for all the same analytes as the regular samples. Given that the NCBC site is being sampled for dioxins but not other analytes, these QA measures will not be representative of this site –since duplicates, splits and matrix spikes for this site alone would be expensive to analyze, and perhaps not necessary for a screening study, I suggest that they be collected and held without immediate analysis as a backup (the sampling is likely far less expensive than the analysis). In any event, the QASP should discuss these issues.